



Serial No.: 09/814,066

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A.F. 3673
#14
7/19/03

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re patent application of

Docket No. 20551/I/JR (704001AA)

F. Knauseder

Serial No.: 09/814,066

Group Art Unit: No. 3673

Filed: June 21, 2001

Examiner: Michael Safavi

For: **FLOORING PANELS**

Assistant Commissioner of Patents and Trademarks
Washington, D.C. 20231

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BRIEF OF APPELLANTS UNDER 37 C.F.R. §1.192 (c)

Sir:

Appellant has filed a timely Notice of Appeal from the final office action of the Primary Examiner in finally rejecting claims 1-31 in this application. A check in the amount of \$310.00 (37 C.F.R. §1.17(f)) is attached hereto to cover the fee for filing this appeal brief. Please charge and deficiencies or overpayment of any fees to Attorney's Deposit Account No. 23-1951.

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REAL PARTY IN INTEREST

The real party in interest in this appeal is M. KAINDL, assignee of the entire interest in the above-identified application.

RELATED APPEALS AND INTERFERENCES

The Appellant, their legal representatives and the assignee are not currently aware of any appeal that may directly affect or be indirectly affected by or have some bearing on the Board's decision in this appeal.

STATUS OF THE CLAIMS

Claims 1-31 are currently pending. Claims 1-31 were rejected under 35 U.S.C. §103(a) over Austrian reference 405,560 in view of any of Schied (USPN 4,047,347) or Nemeth (USPN 4,242,390) or German reference 3117605 or German reference 29703962 when considering Roesch et al. (USPN 6,004,417).¹

The claims in issue are attached in appendix "A".

STATUS OF AMENDMENTS

All amendment to the application have been entered for purposes of this appeal.

SUMMARY OF THE INVENTION

The present invention is directed to a configuration for connecting flat components (e.g., flooring panels) of relatively slight thickness along their narrow circumferential sides. (Page 1, lines 1-3.) The components include a tongue and groove mechanism which includes accompanying locking mechanisms for locking the tongue with the groove. (Figure 1C.) IN addition to the locking mechanisms, the present invention employs an adhesive to glue the components together. The adhesive, pre-applied at the factory, eliminates the laborious application of glues to the components on site. This also assures that the intended quantity of glue is always precisely maintained. (Paragraph spanning pages 4 and 5 and page 5, lines 6-11.) Depending on the particular embodiment, the adhesive may be either applied along the surface of the groove, the tongue or both. Also, two part component adhesives are also contemplated by the present invention. Several other types of adhesives are contemplated by the present invention, in addition to the use of the locking mechanism.

It is disclosed in the "Summary of the Invention" section at page 2, 1st paragraph,

[t]he invention is based on the preliminary application of glue to those groove or tongue areas belonging to interlocking tongue and

¹ All 112, 2nd paragraph rejections and objections to the claims have been withdrawn. (See, Advisory Action dated December 26, 2002.)

groove connections, which areas are pressed together when the tongue is automatically drawn into the groove and are fixed in this position by the interlocking connection. This renders superfluous any additional fixing means for holding the components together during the setting phase; this gives automatically a secured connection. (Emphasis added.)

Figures 1A-2C show embodiments of the locking mechanism and tongue and groove system used with the pre-applied glue or adhesive or active ingredient. For example, sides of the groove diverge from a groove base and converge at an end away from the groove base at an angle that is greater than an angle of divergence. The tongue, for example, exhibits wedge-shaped areas that diverge from front to back at the same angle as the sides of the groove, each of which wedge-shaped areas exhibits an undercut in a back area of the tongue that conforms to the groove cross-section, and a locking mechanism integrated into the tongue and the groove.

ISSUES

Whether the subject matter of claims 1-31 is obvious in view of the level of ordinary skill in the art evidenced by Austrian reference 405,560 in view of any of Schied (USPN 4,047,347) or Nemeth (USPN 4,242,390) or German reference 3117605 or German reference 29703962 when considering Roesch et al. (USPN 6,004,417).

GROUPING OF CLAIMS

The rejected claims do not stand or fall together.

- I. Claims 1, 2, 14, 16, 21-24, 28 and 31 stand and fall together.
- II. Claims 3-13, 15, 17-20, 25-27, 29 and 30 stand and fall together.

The reasons why Appellant considers the rejected claims to be separately patentable are set forth in the following section, entitled "ARGUMENT".

ARGUMENT

The claimed invention is adapted to solving the problem of the applying glue or adhesive to a flooring panel system at the site of installation. It well known that applying glue or adhesive at the site of flooring installation is time-consuming and creates many known problems. For example, application of glue or adhesive at the site of flooring installation may result in a non-uniform application over the edges or sides of the flooring panels. Additionally, excessive quantity of glue over the entire side length of the groove and/or tongues of the panel may also result. This excess glue then adheres to the decorative layer of the panels, or to the installers, themselves. Also, the glue has a tendency to set prematurely during delays in the laying process, which makes it impossible to have a practically seamless joining. Glue also has a tendency to have unpleasant welling out of excess glue, which must be removed immediately after having left the joints to avoid the formation of spots on the decorative layer.

The present invention solves these problems. Specifically, the panels of the present invention are provided with glue -- whether the glue is active in advance or becomes active when the panels are joined on site—in addition to a locking mechanism. This reduces the number of manual stages involved in laying out the panels. Also, the step regarded as time-consuming and unpleasant is eliminated; namely, the application of glue in a uniform and non-excessive manner is eliminated. This, in turn, eliminates the problem of the glue setting prematurely during delays in the laying process, thereby ensuring a practically seamless joining. Also eliminated is the unpleasant welling out of excess glue, which must be removed immediately after having left the joints so as to avoid the formation of spots on the decorative layer. Lastly, by using the present invention, any additional fixing means for holding the components together during the setting phase is superfluous since the locking mechanism automatically provides for a secured connection.

To be even more specific, in one aspect of the present invention, the connecting members that interact on the tongue-and-groove principle are provided at the areas being connected. The sides of the groove diverge from a groove base and converge at an end away from the groove base at an angle that is greater than an angle of divergence. An opening width of the groove is

greater than a foremost area of the tongue in a direction of insertion. The tongue exhibits wedge-shaped areas that diverge from front to back at the same angle as the sides of the groove. The wedge-shaped areas exhibits an undercut in a back area of the tongue that conforms to the groove cross-section, while the undercut's borders, adjoining the wedge-shaped areas, converge at the same angle as the groove sides toward a connecting bridge. A locking mechanism is integrated into the tongue and the groove. The adhesive layer, or a substance which activates an adhesive, is applied to the groove at least in the area of its divergent sides or to the tongue at least in the area of its divergent wedge-shaped area, or to both areas. Further aspects of the locking mechanism is contemplated.

Argument (Group I)

In the rejection of the claimed invention, the Examiner is of the opinion that one of ordinary skill in the art would be motivated to combine the flooring system in Austrian reference 405,560 with a glue taught in one of the remaining references. More specifically, the Examiner suggests

“One of ordinary skill in the art would have found it obvious to utilize adhesive with the Austrian ‘560 tongue and groove panel connection for the purpose of achieving a secure connection between adjacent panels with advantages of utilizing ‘two component adhesives’ being affected”

Appellant disagrees with this argument. Appellant submits that it is a well-known principal that the prior art items themselves must suggest the desirability and thus the obviousness of making the combination without the slightest recourse to the teachings of the application. Without such independent suggestion, the prior art is to be considered merely to be inviting unguided and speculative experimentation which is not the standard with which obviousness is determined. (*Amgen, inc. v. Chigai Pharmaceuticals Co. Ltd.*, 927 F.2d 115, 117, 18 USPQ2d 1016 (Fed. Cir. 1988); *In re Regel*, 526 F.2d 1399, 1403, 188 USPQ 136, 139 (CCPA 1975).)

Appellant respectfully submits that the combination of references suggested by the Examiner does not provide any suggestion of the desirability of the combination as recited in the claimed invention. There simply is no independent suggestion or even the slightest motivation in the prior art for the combination of features of the claimed invention. The Examiner is respectfully providing unguided and speculative experimentation to achieve the claimed invention, clearly not the standard for obviousness. In essence, as discussed below, Appellant submits that none of the references motivate one skilled in the art to make a combination as suggested by the Examiner to achieve the claimed invention.

By way of specific example, the Austrian reference 405,560 is directed to tongue and groove flooring panels having a locking mechanism. In this reference, a projection of the locking mechanism snaps into the undercut of the tongue and locks the adjacent panels to one another without any need for glue or other adhesives. The flooring panels thus do not require glue. The Austrian reference 405,560 is, in fact, silent as to the use of glue, does not address the need for glue, nor would one of skill in the art at the time of the invention foresee the any reason to use glue. The Austrian reference 405,560 clearly shows a flooring system with locking panels that already work in its intended manner. For this reason, Applicant submits that the Austrian reference, itself, does not teach the desirability to have glue and that one of ordinary skill in the art would not have known to use glue with this flooring panel system. In fact, Appellant submits that the locking mechanism would make the use of glue superfluous at the time of the invention. Also, Appellant submits that this reference never even contemplates the use of glue, the problems associated with the use of glue or any solutions for the use of glue with flooring panels.

On the other hand, Nemeth, Scheid, DE-3117605 and DE 29703962 are all directed to simple tongue and groove connections, without the use of a locking mechanism. These types of systems are addressed in the prior art section of the specification. In all of these systems, glue is used to attach the panels together via the tongue and groove system. The use of the glue allows the flooring panels to remain attached together since there is no other type of locking mechanism. The only suggestion within these references is to use glue with a simple tongue and groove mechanism. None of these references would provide any motivation for one of ordinary skill in

the art to use the glue in a flooring panel which has a locking mechanism integrated with the tongue and groove system, such as that in Austrian reference 405,560. The use of impermissible hindsight reasoning based on Appellant's own disclosure would appear to be the only motivation.

More specifically, Nemeth is directed to a floor tile which does not have any locking mechanism. Instead, Nemeth shows a beveled angular projection which engages with a cut groove. When two tiles are joined together a gap is defined between the tiles which can accommodate glue therebetween. This design serves to minimize the amount of glue exuding from between the tiles. (Col. 3, lines 12-16.) However, Appellant submits that there is no suggestion in this reference to use glue in a panel that has a locking mechanism. The only suggestion within this reference is to use glue with a conventional type tongue and groove mechanism (i.e., beveled angular projection and cut groove). Appellant thus argues that the Nemeth reference would not provide any motivation for one of ordinary skill in the art to use glue in a flooring panel which has a locking mechanism integrated with the tongue and groove system, such as that in Austrian reference 405,560.

Scheid also uses a conventional tongue and groove mechanism for wall or ceiling panel construction. In this application, nails or other fastening devices are used to hold adjoining panels. Because Scheid uses conventional tongue and groove mechanisms, without any locking mechanisms, it is thus necessary to use glue in order to hold the adjacent panels together. Thus, the only suggestion within this reference is to use glue with a conventional type tongue and groove mechanism. The Scheid reference would not provide any motivation for one of ordinary skill in the art to use glue in a flooring panel which has a locking mechanism integrated with the tongue and groove system, such as that in Austrian reference 405,560. ←

Similarly, DE-29703962 is directed to a conventional tongue and groove connection of panels, floor-boards, cover facings, and the like. In this conventional configuration, glue is necessary in order to lock the panels together (since there is no interlocking mechanism). The disadvantage of this design is that the two surfaces that come into contact must be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint. Again, the

only suggestion in this reference is to use glue in a conventional type tongue and groove configuration without any interlocking features designed therein. Accordingly, Appellant submits, again, that there would be no motivation to one of ordinary skill in the art to use the glue of this conventional tongue and groove system in the Austrian reference 405,560 which includes a locking mechanism integrated with the tongue and groove system.

DE 3117605 also shows a typical and well known tongue and groove joining mechanism. This reference does not show any interlocking mechanism. If one were to use glue or adhesive with this reference it is simply because this would be necessary in order to ensure that the panels remained joined together. But, again, there is no suggestion within this reference to use glue in a flooring panel which includes a locking mechanism in conjunction with the tongue and groove.

The Examiner is also of the opinion that

“[t]he rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law.”

Appellant, however, submits that the rationale to modify the references is not in the prior art, expressly or impliedly, nor can it be reasoned from knowledge generally available to one of ordinary skill. Appellant submits that the prior art references clearly do not expressly teach the combination of an interlocking mechanism and glue. The references to Schied or Nemeth or DE 3117605 or DE 29703962 teach the use of glue with a tongue and groove panel system having no locking mechanism. The use of glue is thus critical in the systems of these references in order to allow the panels to remain attached together using a conventional tongue and groove. But, there is no express teaching to use glue with panel systems having a locking mechanism. On the other hand, the Austrian reference shows a panel system having a locking mechanism, but without the need for glue. Thus, this reference also does not expressly teach the combination as suggested by the Examiner.

As to impliedly teaching the combination, it is submitted that Schied or Nemeth or DE 3117605 or DE 29703962 are directed to simple tongue and groove connections, without the use of a locking mechanism. These are the same type of systems as discussed in the prior art section and which leads to the same disadvantages (i.e., making it impossible to adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint) which are overcome by the present invention. It would thus seem that there is no implied teaching to use the glue in another system, which has a locking mechanism.

It is also Appellant's knowledgeable opinion that one of ordinary skill in the art would not have reasoned from knowledge generally available to one of ordinary skill in the art to make the modification suggested by the Examiner. As noted above, the Austrian reference already includes a locking mechanism. The Austrian reference works in its intended manner, without the need for any modification. It would appear from a close inspection of the Austrian reference that the locking mechanism is quite sufficient, as contemplated by the inventors, to join and hold adjoining panels. There would appear, from the inventor's of this system perspective, no need for glue in this system. And, it is submitted, that one of ordinary skill in the art would not have placed glue in a system which already contains a locking mechanism. It is only after the present invention was known that it becomes known to use a locking mechanism in addition to glue in order to maintain the components together during a setting phase without the need for additional means. Also, Schied or Nemeth or DE 3117605 or DE 29703962 have glue but do not need a locking mechanism in order to achieve their objectives. It is thus submitted that each of the references applied by the Examiner meet their objectives and any modification can only be based on hindsight reasoning.

The Examiner is also of the opinion that

It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant.... Although Ex parte Levengood states that obvious cannot be established by combining references 'without also providing evidence of the motivating force which would impel one skilled in the art to do what

the patent applicant has done'...

Appellant submits, though, that there simply is no motivation provided by any of the references and that it is important in the determination of an obviousness analysis that one very strong motivating factor would be the acknowledgement of the same or similar problem in the combined references. In the present matter, there is no acknowledgement of a problem, there is no solution to the same problem and, in fact, there is not even any tacit acknowledgement to make use of a locking mechanism with glue for the purposes of the present invention. This would, in fact, seem contrary to these combined references, and especially the primary Austrian reference 405,560. Thus, in toto, there is simply no motivation in any of the references, either implicitly or explicitly, that one of ordinary skill in the art would have combined the references in order to achieve the claimed invention.

Additionally, Appellant submits that, in any event, when the problem or the source of the problem is not even recognized in the art, the claimed invention may be considered a patentable invention even if the constituent parts of the claimed invention are found in the applied references. Specifically, *In re Peehs* held, in part

“[a] patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the ‘subject matter as a whole’ [test] which should always be considered in determining the obviousness of an invention under 35 U.S.C. §103.”

In re Peehs, 612 F.2d 1287, 204 USPQ 835 (CCPA 1980)

In view of the above holding, Appellant submits that one of ordinary skill in the art did not even recognize the problem which is solved by the present invention. This problem is not even recognized in any of the references and, as such, the benefits of the present invention would not have even been known prior to the present invention. Accordingly, even if a combination of references teaches the constituent parts (which it does not), it certainly is not obvious to combine such references. Since the problem is not recognized in any of the references, Appellant submits

that the solution would then not be obvious. Accordingly, Appellant again submits that the Examiner is using impermissible hindsight reasoning based on Appellant's disclosure in order to achieve the claimed invention based on the combined references.

It is further submitted that the references do not even teach all of the limitations of the claimed invention. Namely, the references do not teach the use an adhesive layer, or a substance which activates an adhesive, applied to the groove at least in the area of its divergent sides or to the tongue at least in the area of its divergent wedge-shaped area, or to both areas. It is also submitted that the gluing system of some of these prior art systems would not result in the advantages of the present invention. In fact, the present invention was specifically designed to overcome the exact shortcomings of using conventional systems. For example, by using the glued systems of the prior art, the two surfaces that come into contact must be pressed together with a considerable degree of pressure, making it impossible to additionally adjust the glued joint in the longitudinal direction for the purpose of closing a transverse joint. Accordingly, there would be no motivation to one of ordinary skill in the art to use the glue of this conventional tongue and groove system in the Austrian reference 405,560 which includes a locking mechanism integrated with the tongue and groove system.

In view of the above discussion, Appellants submit that the Examiner has not demonstrated a prima facie case of obviousness.

Argument (Group II)

The claims of group II are directed to many different variations of glues, adhesives, two part components, epoxies and the like. In these claims, the use of strands, micro-encapsulated adhesives, the placement and configuration of such adhesives and the like are recited in specificity. In each of the recited inventions of group II, no single reference or combination of references teaches, explicitly or implicitly, the features and advantages of these claims.

By way of some examples, the combination of references does not show:

1. A filling comprising the adhesive or glue that is stabilized by removal of a solvent

or a dispersion agent but that can be reactivated upon contact with the solvent, and a film or covering that is applied or sprayed on before the panels are joined together and that at least moistens the tongues, or with a surface impregnation comprising the solvent or dispersing agent which serves as an activator for the adhesive or glue. (claim 4)

2. A filling comprising a dispersion glue that is stabilized by the removal of water, but that can be reactivated upon contact with a solvent and comprising a fast-binding and mounting glue on a polyvinyl acetate base. (claim 5)
3. A two-component polymerization glue, in a form of a hardener varnish, the hardener varnish has an organic peroxide as its base and the first component is a resin component which has a methyl acrylate base. Alternatively, the hardener varnish has an aliphatic or cycloaliphatic polyamine as its base and the resin component is based on at least one of an epoxide and bisphenol A and bisphenol F resin. (claims 6, 7 and 8)
4. Lastingly sticky and permanently active adhesive glue exhibiting viscosity values between 15,000 and 1500 centi-poise at temperatures between 140 and 170 C and applied at temperatures in the indicated range. (claim 16)
5. A flexible polymer material that is adhesive relative to the material of the panel, at least upon application of the integral adhesive strand, and that will set rapidly, and with butyl rubber or with a two-component or moisture-linking polyurethane rubber mass. (claim 18)
6. An integral adhesive strand that exhibits a cross-section with the shape of a flattened dome. (claim 19)

7. A coating exhibits a basically uniform layer thickness in the range from 0.1 to 0.4 with thickness tolerances in the range of 0.05 mm. (claim 20)

As to Roesch, this reference does not specifically mention all of the different combinations of the claimed invention, as shown in the examples above. Roesch shows a microencapsulatable solvent adhesive composition for coupling plastic conduits, such as pipes, connectors and related fittings comprising a water-insoluble polymer and a mixture of volatile organic solvents for the polymer. This solvent adhesive composition is suitable for microencapsulation by aqueous-based microencapsulation processes. A plurality of microcapsules encapsulating the solvent adhesive composition are bound to a polymeric surface of a conduit, such as a pipe connector or fitting, by a binder composition, to form a surface coated with a layer of rupturable microcapsules. When the microcapsules are ruptured upon joining of the coated conduit to a second conduit, the volume of the released solvent adhesive composition is sufficient to cement the surfaces together.

Appellant notes that the adhesives (generally speaking) of the claimed invention and its configuration (i.e., strands, thickness, viscosity, etc.) are not disclosed in this reference or any other reference cited or applied by the Examiner. Roesch reference does not disclose many of the combinations of the adhesive, the properties being used and the like of the claimed invention. Additionally, the remaining references also do not contemplate, even remotely, these types of adhesives of the claimed invention. In fact, it would appear that the remaining references such as Schied or Nemeth or DE 3117605 or DE 29703962 merely use a conventional glue. For example, Nemeth, throughout the disclosure only refers to a "glue". Similarly, Scheid only refers to an "epoxy", "glue" or "adhesive", without giving any detail. It would seem from the context of these references that such "glues" are basic single component wood glues, as would be conventionally understood in the art. However, the present invention, provides several types of adhesives pre-applied at the factory, which are used for the advantage of, for example, uniform application, elimination of excess glue and activation of the glue at the flooring location (which

was previously applied in the factory). These same advantages cannot be provided by the glues of Schied or Nemeth or DE 3117605 or DE 29703962 since they are applied during the installation of the flooring, etc.

In any event, Appellant submits that the Roesch reference does not use its two part components with a flooring panel system. Nowhere is there any suggestion in this reference for using this two component mix in a floor panel, much less one that is disclosed and claimed in the present invention. The Roesch reference, simply stated, is used for pipes which is such a divergent art from the Austria reference 405,560 and remaining references that one of ordinary skill in the art would not have any motivation to combine such references in order to achieve the claimed invention. Appellant also submits that the Roesch glue is used different via the rupture of the microencapsulated particles. Appellant thus submits that using the Roesch reference with the Austrian reference 405,560 (or other remaining references) to achieve the claimed invention is impermissible hindsight reasoning based purely on Appellant's disclosure.

CONCLUSION

In summary, the combination of references presented by the Examiner does not show the features of claims 1-31. Austrian reference 405,560 in combination with the remaining references, alone or combined, does not provide any motivation or suggestion for the use of a locking mechanism and glue in a same flooring panel. These references do not address the same problem, do not provide any motivation for combining the references and would appear to be contrary to their own teachings. This is especially true of the Austrian reference 405,560.

Serial No.: 09/814,066

--15--

Accordingly, the combination of the references suggested by the Examiner does not provide evidence that would support a conclusion of obviousness under 35 U.S.C. §103(a). Therefore, it is respectfully submitted that the rejections of claims 1-31 are in error and reversal thereof is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Andrew M. Calderon', with a horizontal line drawn underneath.

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Appendix "A"

Claims

1. A configuration for combining flat structural components of relatively low thickness along their narrow circumferential sides, where connecting members that interact on the tongue-and-groove principle are provided at the areas being connected, and the sides of the groove diverge from a groove base and converge at an end away from the groove base at an angle that is greater than an angle of divergence, where an opening width of the groove is greater than a foremost area of the tongue in a direction of insertion, which tongue exhibits wedge-shaped areas that diverge from front to back at the same angle as the sides of the groove, each of which wedge-shaped areas exhibits an undercut in a back area of the tongue that conforms to the groove cross-section, while the undercut's borders, adjoining the wedge-shaped areas, converge at the same angle as the groove sides toward a connecting bridge, a locking mechanism integrated into the tongue and the groove, wherein an adhesive layer, or a substance which activates an adhesive, is applied to the groove at least in the area of its divergent sides or to the tongue at least in the area of its divergent wedge-shaped area, or to both areas.

2. A configuration according to claim 1, wherein:

locking elements are on at least one side of the groove and at least one side of the tongue, the locking elements conform to each other and extend over the entire length of the groove and the tongue are provided in the form of an indentation or recess and a projection, in order to hold connected components in a joined position;

the groove is formed directly in the component or is worked out of the same in order to provide for a connection of the components;

the tongue forms a single piece with the component or is worked out of the same;

a width of the groove increases from inside outward;

a thickness of the tongue decreases in the direction of an unattached end;

the projection on the tongue is triangular and exhibits a shorter back surface and a longer front surface;

the recess in the groove exhibits a shorter contact surface that lies at a distance from the groove base and that rests against the shorter back surface of the projection;

at least one of the two groove sides flex elastically and outwards relative to the other groove side so that in a locked position the tongue is held by the groove sides with a squeezing action or is inserted into the groove while the groove sides bend elastically;

an angle between the longer front surface and the shorter back surface is 100° to 140°;

two legs of the groove are equally as long as the respective longer front surface and the shorter back surface;

the recess in the groove exhibits a contact area close to the groove base that in the locked position at least partially rests against the longer front surface;

the longer front surface close to the groove base, or the section of the tongue area received by the recess, is four to eight times as long as the shorter back surface; and

the tongue is provided with the layer of adhesive or with the adhesive with an activating substance on at least the contact surface of the groove walls close to at least one of the groove base and on the longer front surface of the tongue.

3. A configuration according to claim 1, wherein:

the grooves of the individual panels are provided with a filling, coating, covering or strand, comprising a latent adhesive material that becomes active after appropriate activation, and

the tongues are provided with a coating or surface impregnation, a covering or strand is applied to the panels and moistens them shortly before they are joined together and comprises an activator which induces adhesion.

4. A configuration according to claim 1, wherein:

the grooves of the panels are provided with a filling comprising the adhesive or glue that is stabilized by removal of a solvent or a dispersion agent but that can be reactivated upon

contact with the solvent, and

the tongues of the panels are provided with a film or covering that is applied or sprayed on before the panels are joined together and that at least moistens said tongues, or with a surface impregnation comprising the solvent or dispersing agent which serves as an activator for the adhesive or glue.

5. A configuration according to claim 1, wherein:

the grooves of the panels are provided with a filling comprising a dispersion glue that is stabilized by the removal of water, but that can be reactivated upon contact with a solvent and comprising a fast-binding and mounting glue on a polyvinyl acetate base.

6. A configuration according to claim 1, wherein:

the grooves of the panels are coated with an initial component of a two-component glue, and

the tongues are coated with a second component of said two-component glue, or vice versa.

7. A configuration according to claim 1, wherein:

the grooves or the tongues of the panels are coated with a second component applied in the course of manufacturing the panels of a two-component polymerization glue, in a form of a hardener varnish, and with a first component which is applied to the second component before the panels are laid.

8. A configuration according to claim 7, wherein the hardener varnish has an organic peroxide as its base and the first component is a resin component which has a methyl acrylate base.

9. A configuration according to claim 7, wherein the hardener varnish has an aliphatic or cycloaliphatic polyamine as its base and the resin component is based on at least one of an

epoxide and bisphenol A and bisphenol F resin.

10. A configuration according to claim 1, wherein the adhesive is a micro-encapsulated adhesive and at least one of lateral areas of the groove belonging to the panels and at least one of the tongue lateral areas is provided with a coating or strand with the micro-encapsulated adhesive that is immediately active.

11. A configuration according to claim 10, wherein the micro-encapsulated adhesive takes the form of a two-component adhesive with a mixture of a micro-encapsulated resin component and a micro-encapsulated hardener component.

12. A configuration according to claim 1, wherein the adhesive is a two-component adhesive and at least one of lateral groove areas of the panels is provided with a coating or with a strand of micro-encapsulated resin component of the two-component adhesive and at least one of lateral tongue areas that interacts with said coated lateral groove area is provided with a coating, or film or strand of a micro-encapsulated hardener component of said two-component adhesive, or vice versa.

13. A configuration according to claim 1, wherein the adhesive is a two-component adhesive and at least one of at least one of lateral groove areas and at least one of lateral tongue areas is provided with a coating or a film of micro-capsules that are dispersed in a matrix of a hardener component of the two-component adhesive and that contains a resin component of the same adhesive, or of micro-capsules dispersed in a matrix of the resin component and containing the hardener component.

14. A configuration according to claim 1, wherein the adhesive is a lastingly sticky and permanently active adhesive glue which is covered or coated on at least one of the grooves of the panels and the tongues.

15. A configuration according to claim 14, wherein the lastingly sticky and permanently active adhesive glue exhibits viscosity values between 15,000 and 1500 centi-poise at temperatures between 140 and 170 C and is applied at temperatures in the indicated range.

16. A configuration according to claim 14, wherein the sticky and permanently active adhesive glue is molten adhesive glue.

17. A configuration according to claim 1, wherein at least one of the grooves of the panels and the tongues are provided with the adhesive which is an integral adhesive strand exhibiting a core strand of a lastingly sticky and permanently active adhesive glue and a polymer cladding strand that surrounds said core strand on all sides, prevents the diffusion of water or any adhesive solution or dispersion agent, and is destroyed by the action of pressure and shearing forces exerted when the panels are brought together, where the core strand is formed with an active adhesive or glue with setting properties that is prepared with at least one of water and a dispersion agent or solvent on at least one of a synthetic polymer base, a polyvinyl acetate base, and on a biopolymer base, on at least one of a starch and protein base.

18. A configuration according to claim 17, wherein the cladding strand for the adhesive or cement strand is formed with a flexible polymer material that is adhesive relative to the material of the panel, at least upon application of the integral adhesive strand, and that will set rapidly, and with butyl rubber or with a two-component or moisture-linking polyurethane rubber mass.

19. A configuration according to claim 17, wherein at least one of the grooves and the tongues are provided with the adhesive which is an integral adhesive strand that exhibits a cross-section with the shape of a flattened dome.

20. A configuration according to claim 1, wherein a coating of the grooves of the panels is an

adhesive that is stabilized by removal of water but can be (re-)activated upon contact with water or water moisture and exhibits a basically uniform layer thickness in the range from 0.1 to 0.4 with thickness tolerances in the range of 0.05 mm.

21. A configuration according to claim 2, wherein the shorter back surface and the longer front surface form two triangular sides.

22. A configuration according to claim 21, wherein the two triangular sides are between 110° to 130°.

23. A configuration according to claim 2, wherein the longer front surface is five to seven times as long as the shorter back surface.

24. A configuration according to claim 2, wherein both of the two groove sides flex elastically and outwards relative to the each other.

25. A configuration according to claim 3, wherein:

at least one of lateral groove areas of the grooves are provided with the filling, coating, covering or strand, and

at least one of the sides of the tongues are provided with the coating or surface impregnation.

26. A configuration according to claim 4, wherein:

the filling is a coating applied to at least one of lateral areas of the grooves,

at least one of lateral areas of the tongues of the panels are provided with the film or covering, and

the surface impregnation comprising the solvent or dispersing agent is water.

27. A configuration according to claim 6, wherein:

at least one of lateral areas of the grooves of the panels are coated with the initial component which is unhardened or not fully hardened resin component of a two-component polymerization glue, and

at least one of lateral areas of the tongues are coated with the second component which is a hardener component.

28. A configuration according to claim 15, wherein the range is between 145 and 155 C.

29. A configuration according to claim 17, wherein border areas of the at least one of the grooves of the panels and the tongues are provided with the integral adhesive strand and the dispersion agent or solvent is wood glue.

30. A configuration according to claim 20, wherein the basically uniform layer thickness is in the range from 0.15 to 0.25 mm with thickness tolerances in the range of 0.05 mm.

31. A configuration for combining flat structural panels, comprising:

a first panel having a groove with a groove opening and a groove base, the groove further having a first locking element and divergent sides,

a second panel having a tongue with a second locking element which interacts with the first locking element when the first panel and the second panel are joined, the tongue having a divergent wedge shape;

an adhesive layer or a substance which activates an adhesive applied to the groove at least in the area of the divergent sides or to the tongue at least in the area of the divergent wedge-shaped area, or to both areas, wherein

one of the first locking element and the second locking element is a recess and the other of the first locking element and the second locking element is a projection,

the projection and the recess have a triangular cross-section,

Serial No.: 09/814,066

--23--

a triangular side closer to the groove opening is shorter and more inclined than a triangular side closer to the groove base such that when the tongue is inserted into the groove, the longer side of the projection slides on a section formed prior to the shorter triangular side until the projection has overcome an inner edge of the section and is received by the recess.